

7

16. The structure of claim 11, wherein the desired location is a central location within the power transistor.

17. The structure of claim 11, further comprising a plurality of sense transistors formed in locations symmetrically distributed throughout the power transistor.

18. The structure of claim 11, wherein the circuitry comprises current measuring circuitry.

19. The structure of claim 11, wherein the circuitry comprises voltage measuring circuitry.

20. A method of optimizing thermal or parametric matching between a power transistor and an operatively associated sense transistor, the method comprising the steps of:

8

forming a power transistor, having a plurality of alternating source and drain structures, with a plurality of gate structures interposed there between; and

at a desired location within the power transistor, forming a sense transistor from an isolated portion of either a drain or source structure, wherein the sense transistor has a same bulk potential as the power transistor.

* * * * *